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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,715	12/31/2001	Micheal Butsch	01-407	7784

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EXAMINER

WEBB, SARAH K

ART UNIT

PAPER NUMBER

3731

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,715

Applicant(s)

BUTSCH ET AL.

Examiner

Sarah K Webb

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 29 objected to because of the following informalities: the term "cutting-nozzle element" in line 4 should be change to "cutting-nozzle body" for clarification purposes.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 30, 32, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 30 recites the limitation "the third motor means" in line 3. There is insufficient antecedent basis for this limitation in the claim. The prior claims do not mention a first or second motor means.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,853,384 to Bair.

Bair discloses a fluid jet cutting device for cutting tissue, as most clearly shown in Figure 3. The device includes a hollow body (21) that receives a shut-off element (36). The hollow body (21) and shut-off element (36) define an annular space (38). The shut-off element (36) has a shoulder (37) and moves within the body (21) along the axis in a reciprocating manner (column 4, line 65). A nozzle opening (39) extends radially with respect to the axis of the body (21) and is in communication with the annular space (38). This nozzle (39) is very similar in structure to the nozzle (13) of applicant shown in Figure 2. The shoulder (37) selectively closes nozzle opening (39) and allows for pulsed fluid flow (column 4, line 64 through column 5, line 3).

A variable gap (51) is formed between the cutting nozzle body (21) and the shut off element (36), and the severing fluid flows in this gap (51) (column 5, lines 25-27). Regarding Claim 27, a means for reciprocating the shut-off element (36) is provided in the form of a driving chamber (34) (column 5, lines 35-40), which applies a force axially to the shut off element shoulder (37).

4. Claims 26-29 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 258 901 to Kobayashi et al.

Kobayashi discloses a cutting nozzle element (1') with an opening (35) through which a severing medium flows, as illustrated in Figures 8 and 9. A shut-off element (42) is included in the hollow cutting-nozzle body (Figure 10), which moves in a reciprocating manner along *an* axis of the body. The body has a longitudinal axis and a transverse axis. The shut-off element moves along the transverse axis, and the nozzle extends radially relative to this axis. The shut-off element (42) and body define an annular space and a variable gap is formed between a surface of the shut-off element (42) and the wall of the body. A biasing means, or spring (43), applies

pressure to a shoulder of the shut-off element (42), which closes off the nozzle opening (32).

The spring (43) biases the shut-off element in one direction, and another means (44) is provided for selectively moving the shut-off element (42) in the opposite direction (column 10, line 25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 28-30,32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bair in view of Kobayashi.

Bair includes a means for selectively moving the shut-off element in second direction.

This means comprises:

- 1) a variable gap (51) between a surface of the shut-off element (36) and an inner wall of the nozzle body (21)
- 2) a motor means in the form of a shoulder (37) on the shut-off element that is acted on by the pressurized fluid.

For clarification, one side of the shoulder (37) of the shut-off element is acted on by pressurized fluid in the space designated as 38. A driving chamber (34) applies a force in the first direction to the other side of the shoulder (column 5, lines 35-40).

Bair includes all the limitations of claims 28-30,32 and 33, except for a *biasing* means for moving the shut-off element in the first direction. Kobayashi teaches that a spring can be used to

bias a shut-off element in a first direction. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the drive chamber of Bair with a spring, as taught by Kobayashi, as this is just another way to bias a shut-off element of a fluid jet cutting instrument.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bair in view of US Patent No.Re. 33,258 to Onik et al.

Bair includes all the limitations of claim 31, except for a passage in the reciprocating element. Onik discloses a similar device that has a pulsed pressure means, reciprocating member, and a nozzle radially extending from the axis and in communicating with the hollow annular space. Onik teaches that a reciprocating element, or piston, of a pulsed tissue-cutting device should include an internal passage that allows for cut tissue to be removed. As shown in Figure 1, the piston (56) includes an internal passage (55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an internal passage in the reciprocating element of Bair, as taught by Onik, as this structure allows for cut tissue to be removed.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 3731

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah K Webb whose telephone number is (703) 305-7554. The examiner can normally be reached on 8am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on 703-308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

Sarah K Webb
Examiner
Art Unit 3731

SW
April 30, 2003



Michael Milano
Supervisory Patent Examiner
Art Unit 3731